

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-015614**Date Inspected:** 14-Jul-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Yang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Trial Assembly**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) Trial Assembly Areas

Incident Report for Segment 9BW to 9CW

This Quality Assurance (QA) Inspector wrote an Incident Report for welding the temporary attachments during the wet condition at Side Panel, Counter Weight side for Segment 9BW to Segment 9CW between Panel Points (PP) 76 and PP 77. Please refer the Incident Report # 04-0120F4_TL-15_B278_07-14-2010_9BW to 9CW_Side Panel_Temporary Attachments_Welding in wet condition dated July 14, 2010.

Please reference the pictures attached for more comprehensive details

Segment 7CW to Segment 7DW

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Longitudinal Diaphragm to Longitudinal Diaphragm between Panel Points (PP) 55 and PP 56 for Segment 7CW to Segment 7DW at Cross Beam and Counter Weight side. The QA Inspector verified the bolt tension on a random basis and the results

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appeared to be in general compliance. The Inspection was performed against Notification No. 00425 dated July 14, 2010.

The bolt sizes used were M24 x 70 RC Lot # DHGM240010 and the final torque value established was 560 N-m.

The bolt sizes used were M24 x 95 RC Lot # DHGM240021 and the final torque value established was 540 N-m.

The manual torque wrench used to verify tension was S/N XO2-779.

Segment 8AW

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Traveler Rail Bracket to the Side Panel at Panel Points (PP) 61, PP 62, PP 63 and PP 64 for Segment 8AW. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00425 dated July 14, 2010.

The bolt sizes used were M20 x 95 RC Lot # DHGM200018 and the final torque value established was 347 N-m.

The bolt sizes used were M20 x 100 RC Lot# DHGM220004 and the final torque value established was 346 N-m.

The bolt sizes used were M20 x 160 RC Lot # DHGM200006 and the final torque value established was 340 N-m.

The bolt sizes used were M22 x 190 RC Lot # DHGM220048 and the final torque value established was 500 N-m.

The bolt sizes used were M22 x 120 RC Lot # DHGM220051 and the final torque value established was 433 N-m.

The manual torque wrench used to verify tension was S/N XQ2-666.

Segment 8BW

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Traveler Rail Bracket to the Side Panel at Panel Points (PP) 65, PP 66 and PP 67 for Segment 8BW. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00425 dated July 14, 2010.

The bolt sizes used were M20 x 95 RC Lot # DHGM200018 and the final torque value established was 347 N-m.

The bolt sizes used were M20 x 100 RC Lot# DHGM220004 and the final torque value established was 346 N-m.

The bolt sizes used were M20 x 160 RC Lot # DHGM200006 and the final torque value established was 340 N-m.

The bolt sizes used were M22 x 190 RC Lot # DHGM220048 and the final torque value established was 500 N-m.

The bolt sizes used were M22 x 120 RC Lot # DHGM220051 and the final torque value established was 433 N-m.

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The manual torque wrench used to verify tension was S/N XQ2-666. Please reference the pictures attached for more comprehensive details.

Segment 8CW

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Traveler Rail Bracket to the Side Panel at Panel Points (PP) 68, PP 69, PP 70 and PP 71 for Segment 8CW. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00425 dated July 14, 2010.

The bolt sizes used were M20 x 95 RC Lot # DHGM200018 and the final torque value established was 347 N-m.

The bolt sizes used were M20 x 100 RC Lot# DHGM220004 and the final torque value established was 346 N-m.

The bolt sizes used were M20 x 160 RC Lot # DHGM200006 and the final torque value established was 340 N-m.

The bolt sizes used were M22 x 190 RC Lot # DHGM220048 and the final torque value established was 500 N-m.

The bolt sizes used were M22 x 120 RC Lot # DHGM220051 and the final torque value established was 433 N-m.

The manual torque wrench used to verify tension was S/N XQ2-666.

Segment 7DW to Segment 7EW

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Longitudinal Diaphragm to Longitudinal Diaphragm between Panel Points (PP) 58 and PP 59 for Segment 7DW to Segment 7EW at Cross Beam and Counter Weight side. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00425 dated July 14, 2010.

The bolt sizes used were M24 x 70 RC Lot # DHGM240010 and the final torque value established was 560 N-m.

The bolt sizes used were M24 x 95 RC Lot # DHGM240021 and the final torque value established was 540 N-m.

The manual torque wrench used to verify tension was S/N XO2-779. Please reference the pictures attached for more comprehensive details.

Segment 7CW to Segment 7DW

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Side Panel, Counter Weight Side, T-Rib to T-Rib at Reinforcing Splice plate installed areas between Panel Points (PP) 55 and PP 56 for Segment 7CW to Segment 7DW. The reinforcing splice plates are installed at 14 and 15 T-Rib from Work Point W3 towards W1. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in

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general compliance. The Inspection was performed against Notification No. 00425 dated July 14, 2010.

The bolt sizes used were M22 x 80 RC Lot # DHGM220091 and the final torque value established was 460 N-m.

The manual torque wrench used to verify tension was S/N XO2-779. Please reference the pictures attached for more comprehensive details.

Cross Beam # 9

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Cat Walk structure to Base Plate Stiffener between Panel Points (PP) 62 and PP 63 for Cross Beam #9. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00423 dated July 15, 2010.

The bolt sizes used were M16 x 50 RC Lot # DHGM160011 and the final torque value established was 200 N-m.

The manual torque wrench used to verify tension was S/N XO2-779. Please reference the pictures attached for more comprehensive details.

Cross Beam # 10

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Cat Walk structure to Base Plate Stiffener between Panel Points (PP) 69 and PP 70 for Cross Beam #10. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00423 dated July 15, 2010.

The bolt sizes used were M16 x 50 RC Lot # DHGM160011 and the final torque value established was 200 N-m.

The manual torque wrench used to verify tension was S/N XO2-779.

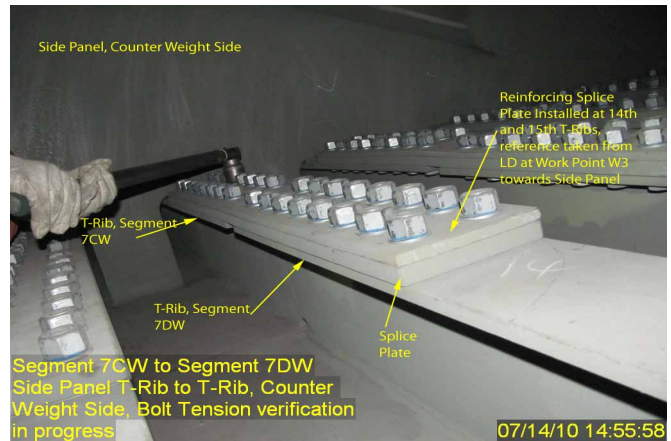
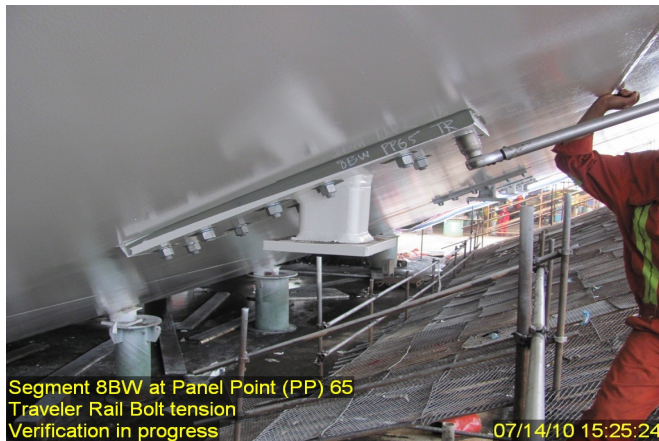
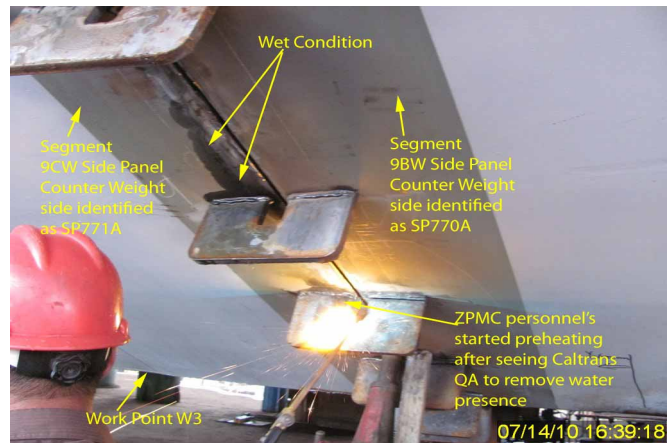
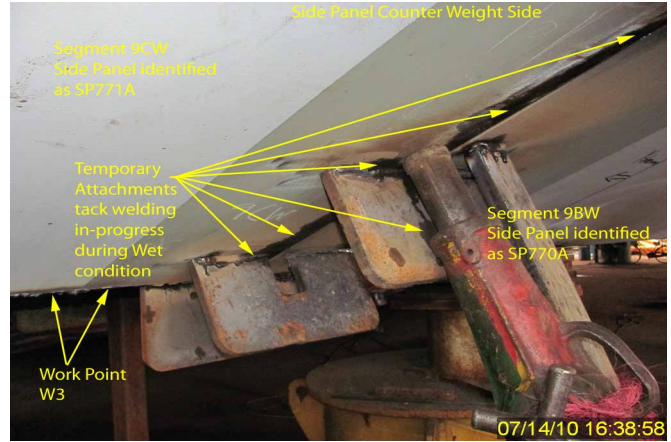
Segment 9AW to 9BW

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as EP111-001-014. The welder identification was 045196 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G (4F)-FCM-Repair-1. The Piece Mark was identified as the Edge Panel I-Ribs.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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Summary of Conversations:

No relevant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150000422372, who represents the Office of Structural Materials for your project.

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Inspected By: Math,Manjunath

Quality Assurance Inspector

Reviewed By: Peterson,Art

QA Reviewer